650 WATT ATX POWER SUPPLY
User's Manual

BLOC D'ALIMENTATION ATX DE 650 WATTS
Le Manuel D'Utilisateur

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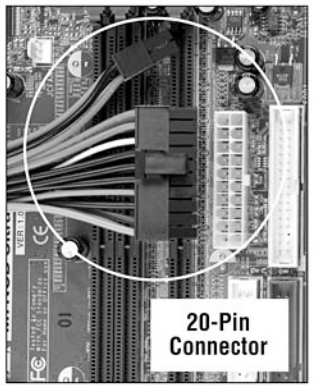
Installation

Step 1

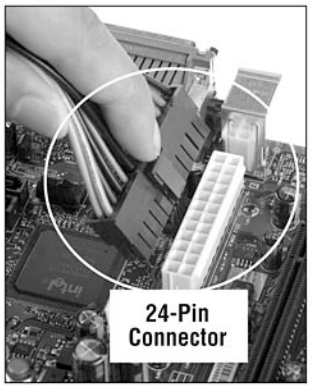
Affix the power supply to the case tightly with 4 screws included.

Step 2-1



Plug the 20-Pin connector onto the motherboard.

Step 2-2

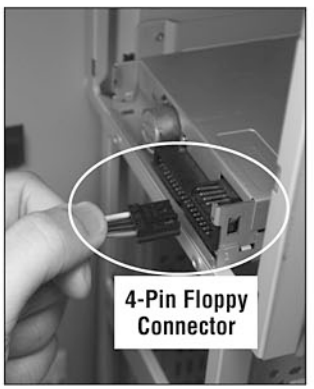


Plug the 24-Pin connector onto the motherboard If the motherboard requires a 24-Pin power connector.

Step 5-1

4-Pin Molex connectors used for Hard Drives, CD-ROM and Cooling Fans.

Step 5-2

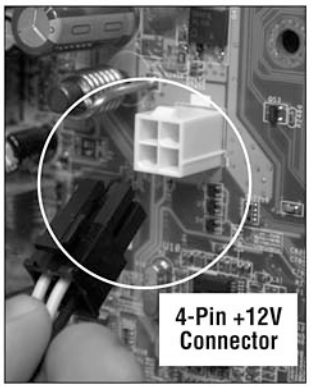


4-Pin Floppy connectors used for Floppy Disk or Zip Drives.

Step 5-3

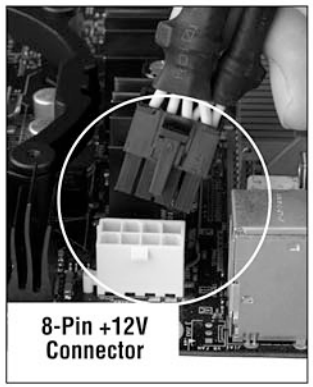
SATA connectors used for SATA Hard Drives.

Step 3-1



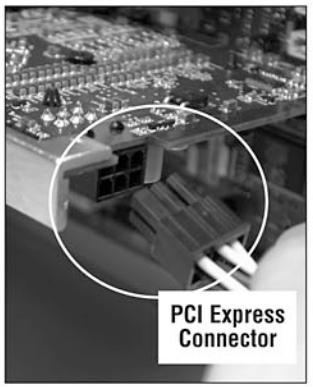
4-Pin +12V connector used for motherboard only.

Step 3-2



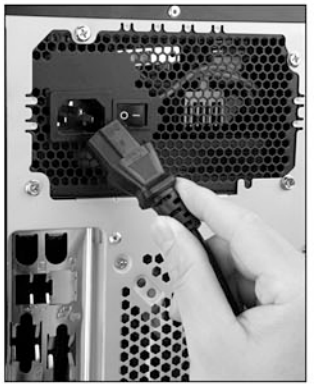
8-Pin +12V connector used for Server / Workstation board.

Step 4



PCI Express connector for video card only.

Step 6-1



Attach power core to the power supply.

Step 6-2

Connect the power cord to a power source.

NOTE:
Do not remove the cover of the power supply.

Product Specification.

1.0 Input

Voltage Range

SELECT SWITCH	MINIMUM	NOMINAL	MAXIMUM
1	103V	115V	132V
2	206V	230V	264V

STEADY STATE CURRENT:

Maximum Current at 115VAC (RMS): 10.5A
Maximum Current at 230VAC (RMS): 6.5A

FREQUENCY: 50Hz ~ 60Hz

POWER EFFICIENCY:

78%(max.) at typical load, 115/230Vac 60Hz/50Hz

2.0 OUTPUT

Max Output Current	+5V	+3.3V	+12V	-12V	+5VSB
	32A	24A	38A	0.6A	2.5A
Max Combined Wattage	190W		456W	7.2W	12.5W
	630W			20W	
	650W				

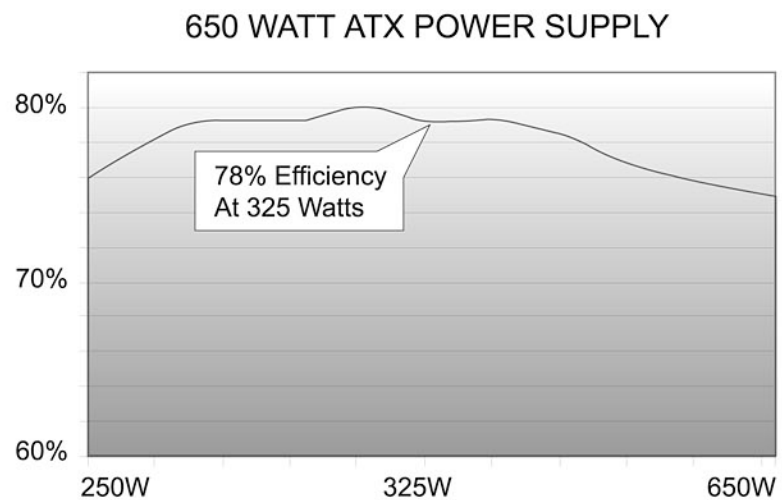
3.0 Protection

If the power supply latches into shutdown stage (when over current, over voltage or short circuit protection is working), the power supply shall return to normal operation only after the fault has been removed and re-applied.

Over Voltage protection

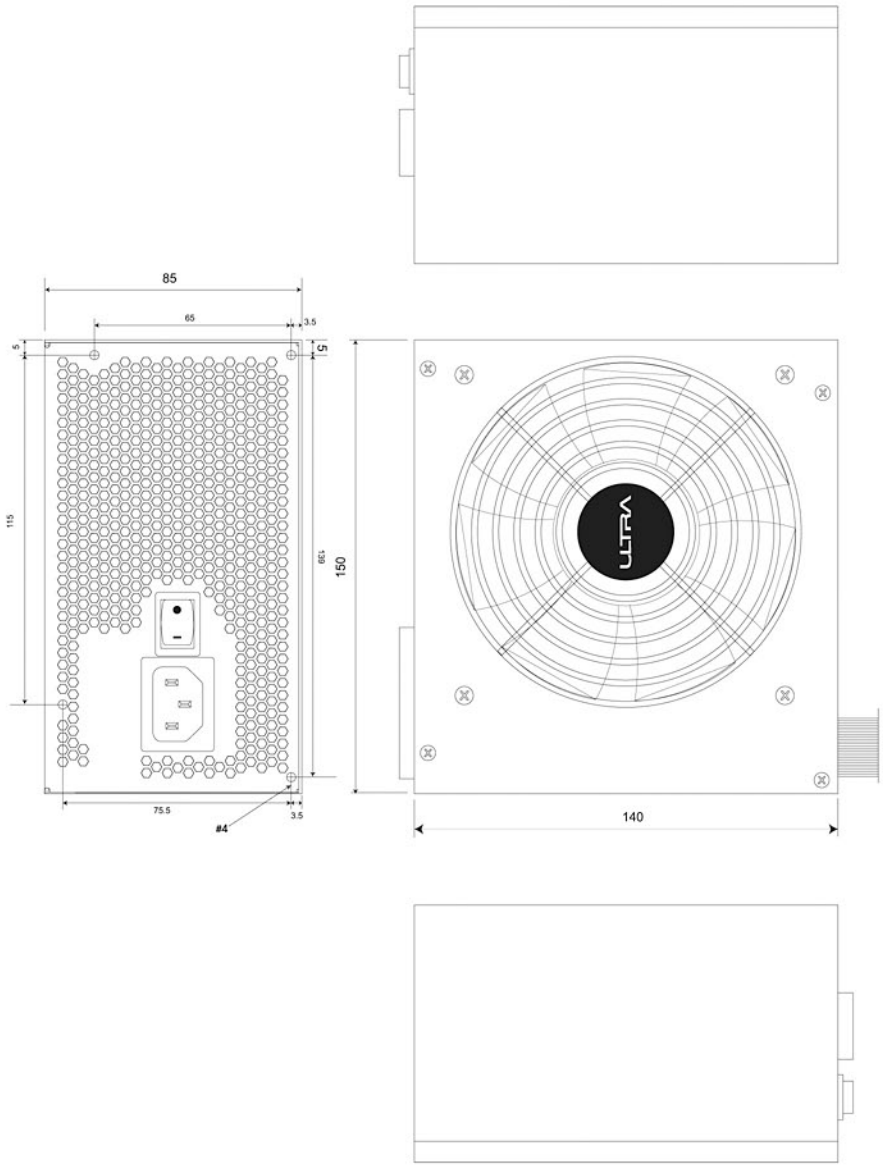
SENSE LEVEL	OVER VOLTAGE
+5V	6.6V/max.
+12V	15.6V/max.
+3.3V	4.5V/max.

4.0 Power Supply Efficiency



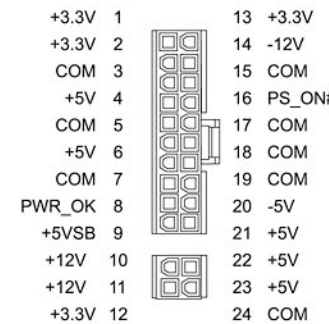
**All tests were performed at 25˚C with 110V input

5.0 Power supply mechanism



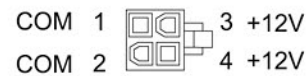
6.0 Connector distributions

• Breakaway Motherboard Connector



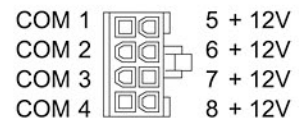
PIN	Description	AWG	PIN	Description	AWG
1	+3.3V	16	13	+3.3V	16
2	+3.3V	16	14	-12V	20
3	COM	16	15	COM	16
4	+5V	16	16	PS_ON#	20
5	COM	16	17	COM	16
6	+5V	16	18	COM	16
7	COM	16	19	COM	16
8	PWR_OK	20	20	-5V	20
9	+5VSB	16	21	+5V	16
10	+12V	16	22	+5V	16
11	+12V	16	23	+5V	16
12	+3.3V	16	24	COM	16

• 4-Pin +12V Connector



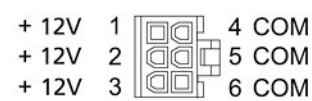
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	3	+12V	18
2	COM	18	4	+12V	18

• 8-Pin +12V Connector



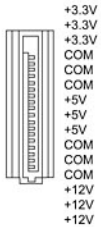
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	5	+12V	18
2	COM	18	6	+12V	18
3	COM	18	7	+12V	18
4	COM	18	8	+12V	18

• 6-Pin PCI-E Connector



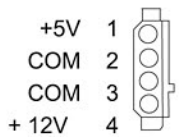
PIN	Description	AWG	PIN	Description	AWG
1	+12V	18	4	COM	18
2	+12V	18	5	COM	18
3	+12V	18	6	COM	18

• SATA Connector



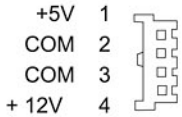
Wir e	Description	AWG
1	+3.3V	18
2	COM	18
3	+5V	18
4	COM	18
5	+12V	18

• Peripheral Power



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

• Floppy Connector



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

7.0 Environment

Ambient operation temperature	0°… to +40°…
Ambient operation relative humidity	20% to 90%
Ambient storage temperature	-20°… to +85°…
Ambient storage relative humidity	10% to 95%

8.0 MTBF

MTBF 100,000 hours at 25°… (demonstrated)

* Safety certificate

CE

CB

UL 1950

IEC 60950

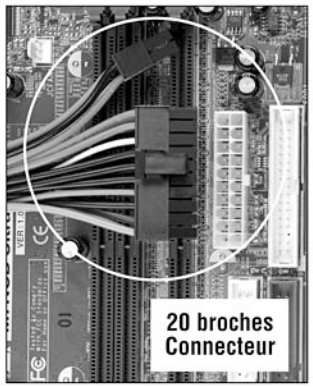
FCC Class B

Installation

Étape 1

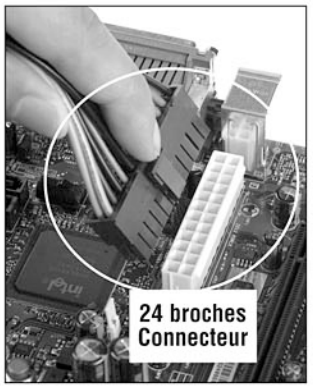
Fixez l'alimentation électrique au boîtier fermement avec les 4 vis incluses.

Étape 2-1



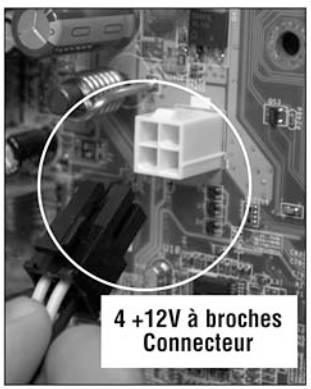
Branchez le connecteur à 20 bornes sur la carte mère

Étape 2-2



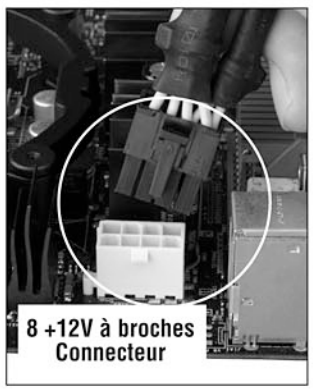
Branchez le connecteur à 24 bornes sur la carte mère. Si la carte mère requiert un connecteur d'alimentation à 24 bornes

Étape 3-1



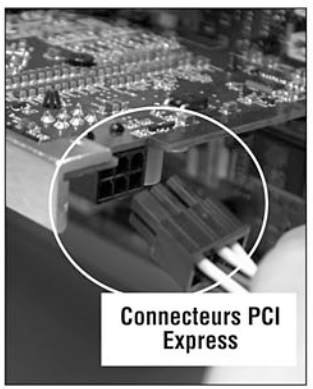
Connecteur +12V à 4 bornes utilisé pour la carte mère seulement

Étape 3-2



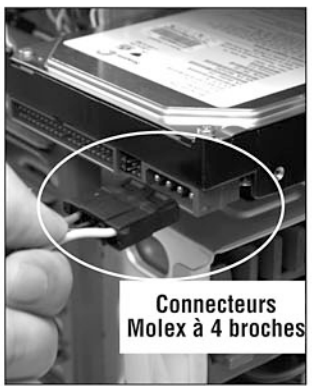
Connecteur +12V à 8 bornes utilisé pour la carte Serveur / Station de travail.

Étape 4



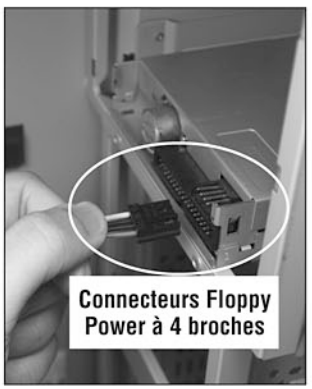
Connecteur PCI Express pour carte vidéo seulement

Étape 5-1



Connecteurs Molex à 4 bornes utilisés pour disques durs, CD-ROM et ventilateurs

Étape 5-2

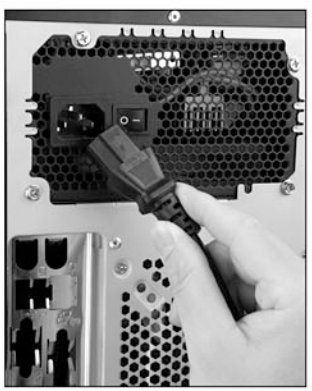


Connecteurs Floppy à 4 bornes utilisés pour pour lecteurs de disquettes et lecteurs Zip

Étape 5-3

Connecteur SATA utilisés pour disques durs SATA

Étape 6-1



Reliez le cordon d'alimentation au bloc d'alimentation

Étape 6-2

Reliez le cordon d'alimentation à une source d'alimentation

Note :
N'enlevez pas la couverture de l'alimentation d'énergie

Spécification du produit

1.0 Entrée

Plage de tension

Commutateur de choix	Minimum	Nominal	Maximum
1	103V	115V	132V
2	206V	230V	264V

Courant d'état stable:

Courant maximal à 115VAC (RMS): 10.5A
Courant maximal à 230VAC (RMS): 6.5A

Fréquence: 50Hz ~ 60Hz

Efficacité électrique:

78 % (Max). à charge typique, 115/230Vac 60Hz/50Hz

2.0 Sortie

Rendimento massimo corrente	+5V	+3.3V	+12V	-12V	+5VSB
	32A	24A	38A	0.6A	2.5A
Wattaggio massimo combinato	190W		456W	7.2W	12.5W
	630W			20W	
	650W				

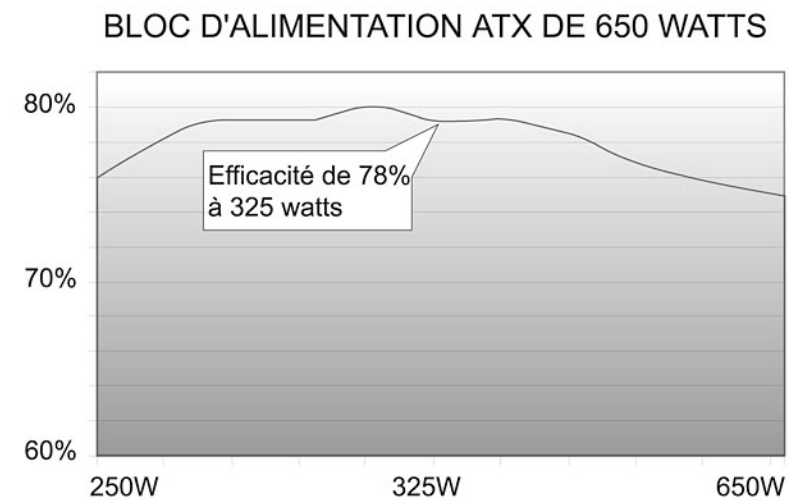
3.0 Protection

Si l'alimentation électrique se bloque à l'état éteint (lorsque la protection contre les sur-courants, les surtensions ou les courts-circuits fonctionne), l'alimentation électrique revient à son fonctionnement normal seulement une fois la panne supprimée et appliquée de nouveau.

Protection contre les surtensions

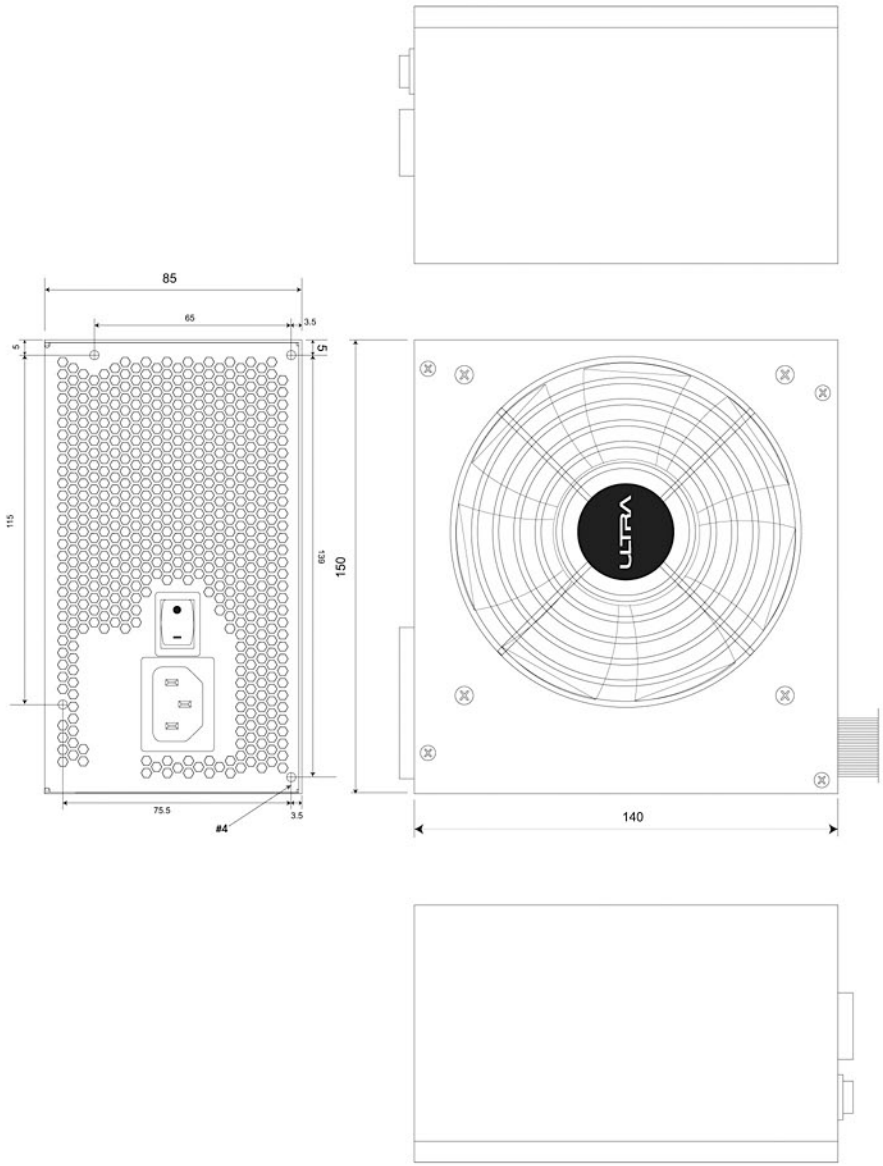
Niveau de sens	Tension Finie
+5V	6.6V/max.
+12V	15.6V/max.
+3.3V	4.5V/max.

4.0 Efficacité d'alimentation d'énergie



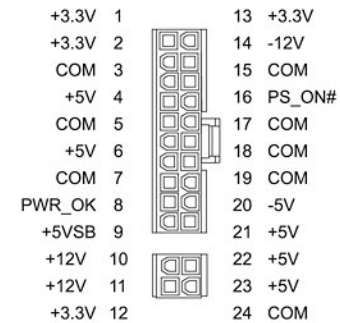
**Tous les essais ont été exécutés à 25°C avec 110V en entrée

5.0 Mécanisme d'alimentation électrique



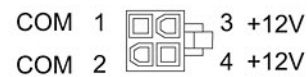
6.0 Distributions de connecteurs

• 20/24 broches Connecteur



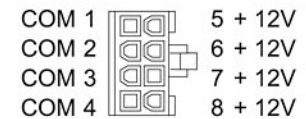
PIN	Description	AWG	PIN	Description	AWG
1	+3.3V	16	13	+3.3V	16
2	+3.3V	16	14	-12V	20
3	COM	16	15	COM	16
4	+5V	16	16	PS_ON#	20
5	COM	16	17	COM	16
6	+5V	16	18	COM	16
7	COM	16	19	COM	16
8	PWR_OK	20	20	-5V	20
9	+5VSB	16	21	+5V	16
10	+12V	16	22	+5V	16
11	+12V	16	23	+5V	16
12	+3.3V	16	24	COM	16

• 4 +12V à broches Connecteur



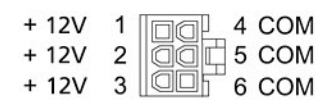
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	3	+12V	18
2	COM	18	4	+12V	18

• 8 +12V à broches Connecteur



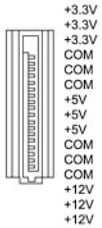
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	5	+12V	18
2	COM	18	6	+12V	18
3	COM	18	7	+12V	18
4	COM	18	8	+12V	18

• Connecteurs PCI Express à 6 broches



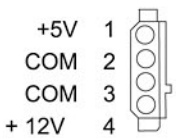
PIN	Description	AWG	PIN	Description	AWG
1	+12V	18	4	COM	18
2	+12V	18	5	COM	18
3	+12V	18	6	COM	18

• Connecteurs SATA



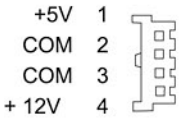
Wir e	Description	AWG
1	+3.3V	18
2	COM	18
3	+5V	18
4	COM	18
5	+12V	18

• Connecteurs Molex à 4 broches



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

• Connecteurs Floppy Power à 4 broches



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

7.0 Environment

Température ambiante de fonctionnement	0°… to +40°…
Humidité relative ambiante de fonctionnement	20% to 90%
Température ambiante de stockage	-20°… to +85°…
Humidité relative ambiante de stockage	10% to 95%

8.0 MTBF

MTBF 100,000 hours at 25°… (demonstrated)

* Certificat de sûreté

CE

CB

UL 1950

IEC 60950

FCC Class B